AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-5. (Canceled)

6. (Currently Amended) A method of generating a frequency sequence, the method comprising the steps of:

obtaining a number of hop frequencies;

obtaining a specific sequence period;

obtaining a sequence with a given repetition distance using all frequencies, the repetition distance being greater than zero and less than a given number of frequencies, and being a minimum number of hops between two occurrences of the same frequency in a frequency sequence;

generating several frequency sequences in vector form; and

generating a matrix including the several frequency sequences in vector form.

7. (Original) The method according to claim 6, wherein the generated matrix has an equal number of columns and rows.

8. (Original) The method according to claim 6, wherein generating a matrix generates a matrix having a plurality of columns, each column of the columns being unique and orthogonal to all other columns.

9. (Currently Amended) A method of generating frequency sequences in a wireless system for use in frequency hopping, comprising the steps of:

obtaining a repetition distance value using all frequencies~~being greater than zero and less than a predetermined number frequencies~~, the repetition distance being greater than zero and less than a given number of frequencies, and being a minimum number of hops between two occurrences of the same frequency in a frequency sequence; and

generating mutual orthogonal sequences simultaneously in vector form based upon the repetition distance.

10. (Previously Presented) The method according to claim 9, further comprising the step of selecting initial vectors used in conjunction with generating the mutual orthogonal sequences.